

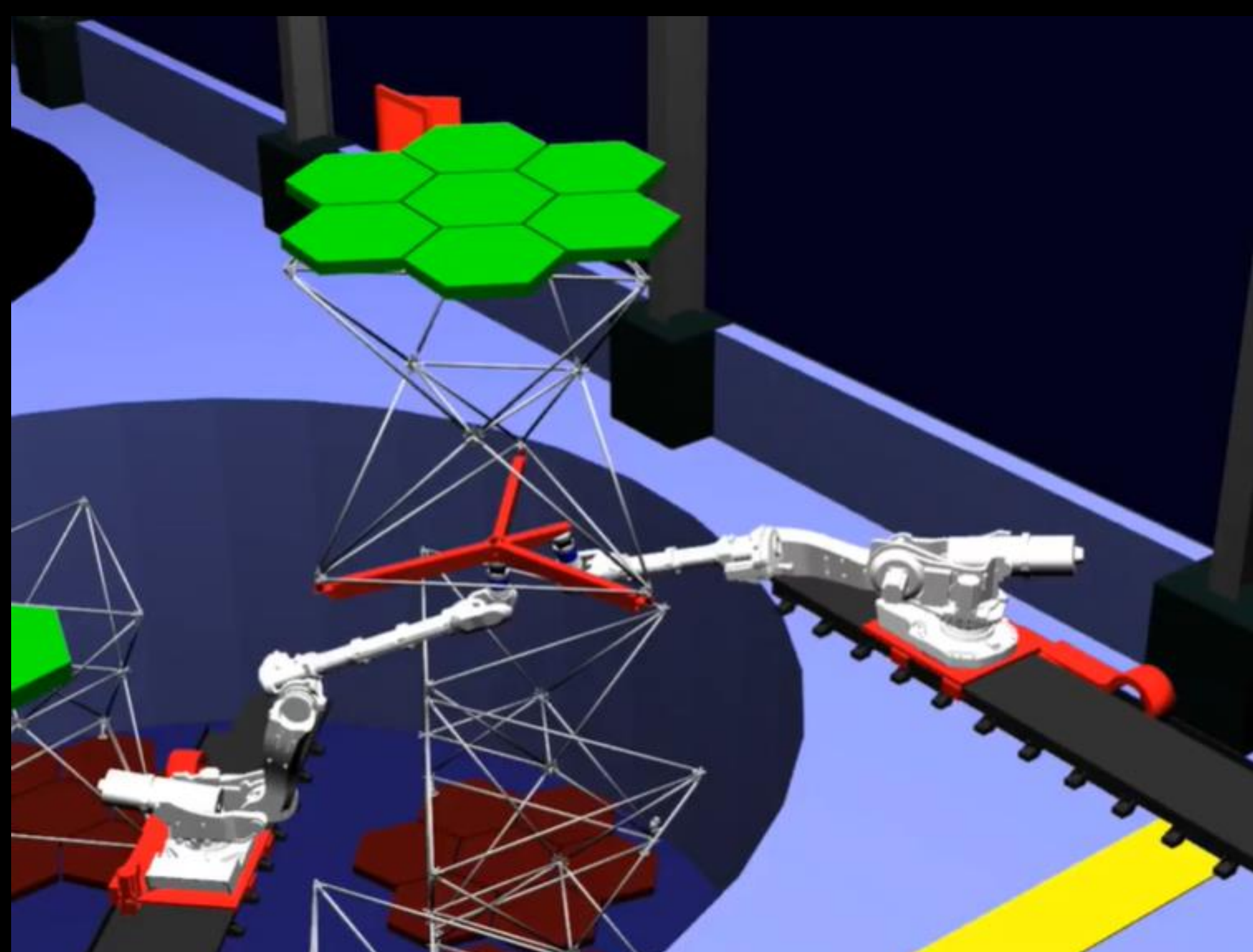
Precision Assembled Space Structure

Autonomous Systems

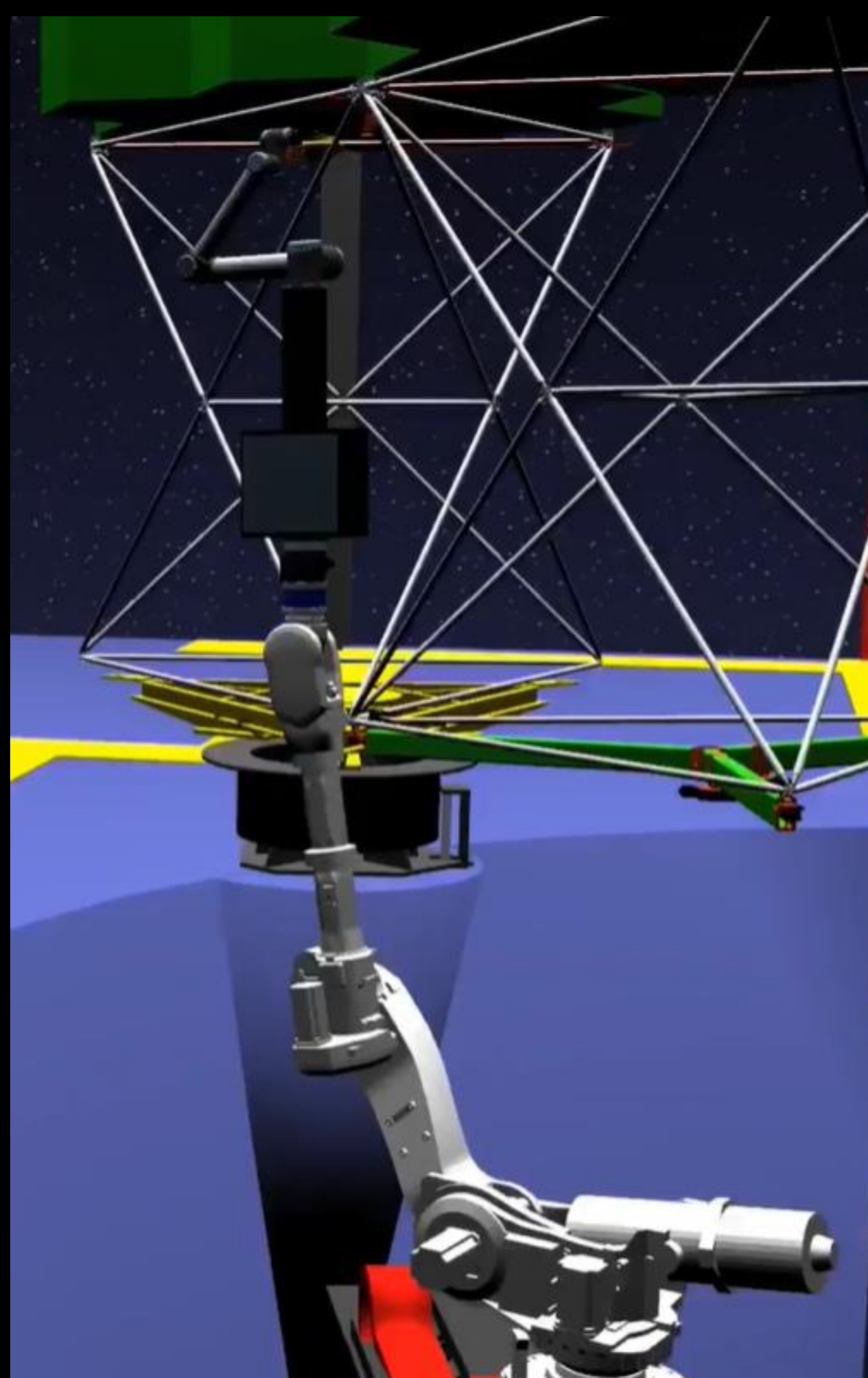
The Precision Assembled Space Structure (PASS) project is developing technologies to autonomously assemble large structures on-orbit

Autonomy supporting in-space assembly:

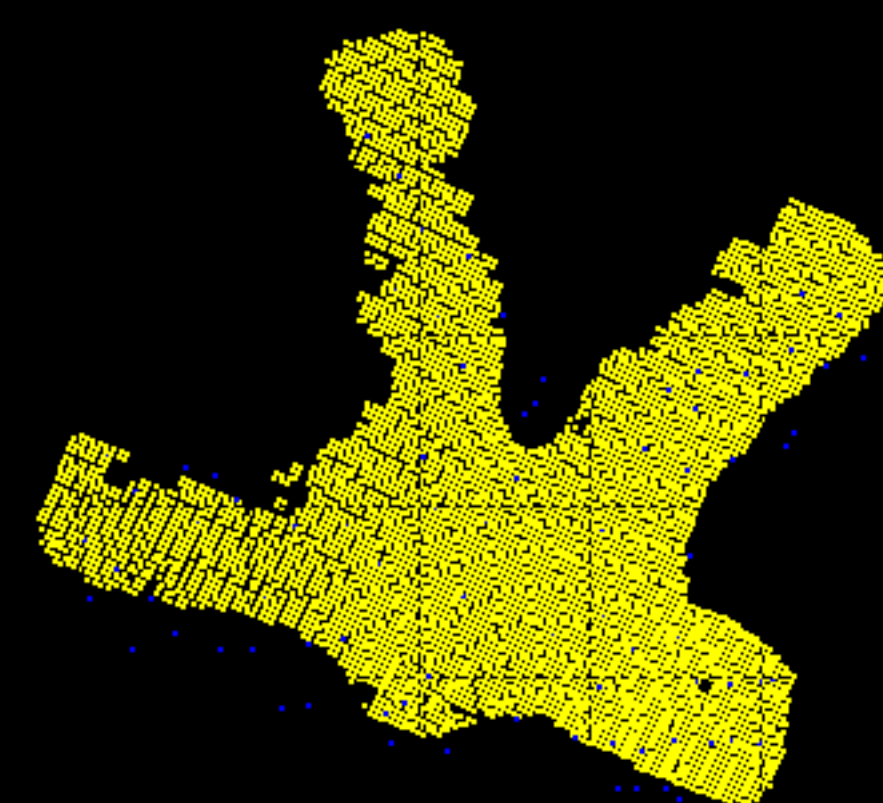
- Robot path planning and trajectory generation
- State estimation
- Mission management
- Modeling and simulation



↑ Payload handoff
Modular robot consisting of two manipulators →



PASS is developing multi-robot collaboration including hand-off maneuvers and modular robotic manipulators



Sensor fusion of camera images and LiDAR point clouds provides pose estimates for objects that the robots must interact with